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Colorado Department
of Public Health
and Environment



Childhood Lead Poisoning in Colorado

A review of January 1996-December 2001

Lead Poisoning Prevention Program, 4300 Cherry creek Dr. S., Denver CO 80246-1530

303-692-2700

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State's Blood Lead Screening Plan

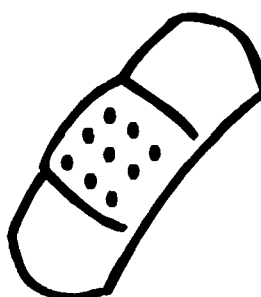
In March 2001, the State Board of Health accepted the following proposed standards concerning the method and frequency of screening young children in Colorado for elevated blood lead levels:

All low income children in Colorado should be routinely screened for blood lead levels at 12 months AND 24 months of age with either a capillary or venous blood specimen. Low income children are identified as:

- Medicaid-eligible children

- Child Health Plan plus eligible-children
- Colorado Resident Discount Program-eligible children
- Children residing in the Denver zip codes identified as high risk by the 1995 Denver Lead Survey (80216, 80203, 80204, 80205)

Low income children in Colorado between the ages of 36 months and 72 months of age should receive a screening blood lead test if they have not been previously screened for lead poisoning



- Children residing in pre-World War II dilapidated housing may be at risk.

For more information call 303-692-2622.

Special points of interest:

- ☺ Blood lead screening rates in Colorado have increased by 36 % since last year.
- ☺ Visit the Lead Program's Web Page for information and links at www.cdphe.state.co.us/dc/aboutdceed.asp#leadpoisonprog.

Rocky Mountain Poison Center's New Pediatric Environmental Health Unit



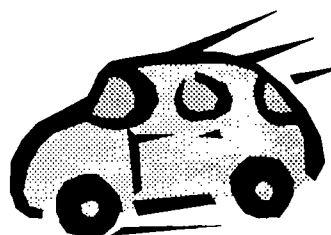
The Rocky Mountain Region Pediatric Environmental Health Specialty Unit (RMR PEHSU) is a new Unit supported by the Association of Occupational and Environmental Clinics.

The goal of the RMR PE-

HSU is to provide information about pediatric, public health, and environmental health issues to health care providers, as well as educators, communities, and families in Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming.

If you believe the environment (air, water, jobs, buildings, ground, or food) is making a pediatric patient ill, or if you have questions about possible environmental exposures,

call the toll free 24-hour RMR PEHSU telephone line at 1-877-800-5554 or view the web site at www.rmrpehsu.org



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Home Investigations to Determine Lead Source

Home investigations to determine the source of lead poisoning are routinely done for children who have blood lead levels at or above 20 ug/dL or two consecutive blood lead levels at 15 ug/dL and above. These are free to the family.

The Lead Poisoning Prevention Program staff is available to train or assist with the investigation. Some local health departments and nursing

services have been trained to perform a simple home investigation.

Medicaid will pay for services associated with lead poisoning follow-up, case management and home investigations. Please call the State Medicaid Program to verify billing codes. 303-866-5532.



Symptoms of Lead Poisoning

Lead poisoning affects young children between the ages of 6 months and 6 years old more than others. These children generally are very active and have a lot of hand-to-mouth activity.

Many times, children with elevated lead levels show no symptoms. Therefore, the only way to know if they have lead poisoning is to do a blood lead test. (Fingerstick methods are now an acceptable method to collect blood.) Questionnaires have been proven ineffective in identifying children truly at risk.

The most common source of lead is

from lead based paint that is poorly maintained in older homes. Some sources of lead exposure discovered in Colorado have been dust from remodeling older homes, adoption from foreign countries (especially China), and exposure to occupations or hobbies that use lead, (such as battery manufacturing, stained glass making, jewelry making, electronics repair, making bullets and fishing sinkers, porcelain from antique bathtubs, and refinishing old wooden objects.)

Lead-exposed mothers may pass lead to their babies through breast milk.

The Lead Poisoning Prevention Program has free lead posters available. (Actual size 22x17") Please call 303-692-2755 to request one.

Blood Lead Testing Has Increased



Since the year 2000, there has been a significant increase in the number of children being tested for lead poisoning. Screening is the first step in identifying children who have been exposed to lead. As more and more evidence suggests developmental delays may occur at levels below 10 ug/dL, primary prevention strategies, such as education and outreach are equally important as testing, yet, the

only way to know if a child has lead poisoning is to do the blood test. The State has developed a Statewide Screening Plan to ensure the children most at risk for lead poisoning are being identified. Thank you for your help in identifying children with lead poisoning.

Testing Data By County 1996-2001

This data is analyzed by county of the physician who ordered the lead test. The Surveillance Program only receives patient addresses on those whose levels are elevated ($\geq 10\mu\text{g/dL}$). Labs are required to report on levels $\geq 10\mu\text{g/dL}$.

*Note counties with fewer than 10 tests are not listed, but their numbers are counted in the totals section. Yearly totals may vary from previous reports due to late reporting and elimination of multiple reports.

Number (and %) of Children Tested 6-72 Months Old 1996-2001

Physician County	<10 $\mu\text{g/dL}$	10-14.9 $\mu\text{g/dL}$ (%)	$\geq 15\mu\text{g/dL}$ (%)	1996-2001 Total
Adams	526	14 (3)	6 (1)	546
Alamosa	180	1 (1)	0	181
Arapahoe	1739	31 (2)	17 (1)	1787
Boulder	546	15 (3)	2 (0)	563
Chaffee	45	0	0	45
Delta	38	2 (5)	0	40
Denver	16901	285 (2)	176 (1)	17362
Douglas	111	3 (3)	1 (1)	115
Eagle	26	1 (4)	0	27
El Paso	1823	13 (1)	13 (1)	1849
Fremont	455	7 (2)	2 (0)	464
Garfield	188	5 (3)	2 (1)	195
Jefferson	778	14 (2)	6 (1)	789
Kit Carson	19	1 (5)	0	20
Lake	914	41 (4)	27 (3)	982
La Plata	200	3 (1)	1 (0)	204
Larimer	1356	14 (2)	6 (0)	1376
Las Animas	141	1 (1)	1 (1)	143
Lincoln	21	1 (4)	1 (4)	23
Logan	123	2 (2)	1 (1)	126
Mesa	457	11 (2)	3 (1)	471
Moffat	29	2 (6)	0	31
Montezuma	218	3 (1)	1 (0)	222
Montrose	139	0	0	139
Morgan	183	4 (2)	3 (2)	190
Otero	204	0	0	204
Pueblo	938	21 (2)	13 (1)	970
Routt	25	0	0	25
Saguache	86	0	0	86
Summit	22	0	0	22
Weld	2444	49 (2)	25 (1)	2518
Totals	30949	549 (2)	309 (1)	31807

Analysis Methods

If more than one test is reported for a single child, only one blood test is counted using the following criteria:

- 1) the highest venous test in a timeframe; or
- 2) the 2nd of two capillary tests within 12 weeks; or
- 3) the first capillary within the timeframe if only capillary tests are recorded.

For the period 1996-2001 a total of 31,807 children had lead tests in the state. 858 of these children (2.7%) had lead levels $\geq 10\mu\text{g/dL}$.

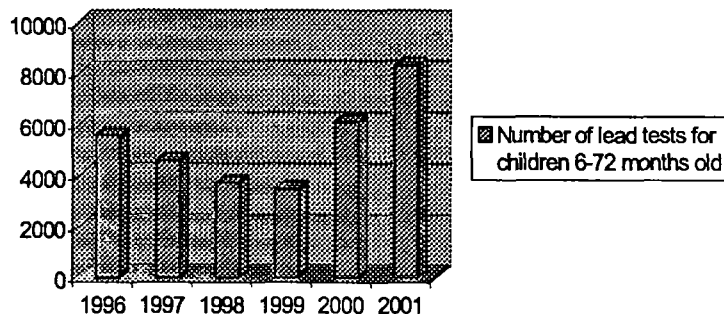
The statewide estimate of Medicaid one and two year olds eligible for lead testing each year is 37,000. In 2001 5,929 children 1-2 years old (12-35 months) had lead tests.

Number of Children (6-72 months old) Screened by Provider County in the Most Populous Counties

County	No. children screened 2001	No. children screened 2000	No. children screened 1999	No. children screened 1998	*No. housing units with high risk of lead hazards
Adams	120	47	37	57	640
Arapahoe	430	183	148	184	420
Denver	4441	2970	2095	2116	12,000
El Paso	597	342	129	154	1,700
Jefferson	270	169	98	14	720
Larimer	622	91	123	165	1,200
Mesa	240	55	12	13	990
Pueblo	205	186	159	161	3,000
Weld	414	438	289	363	1,800

*measure of the amount of housing units built before 1950 occupied by a low income family in an area. Source: www.scorecard.org.

Number of lead tests for children 6-72 months old by year



Lead Poisoning Prevalence by Year For Children 6-72 Months Old

Year	Prevalence (%) of elevated blood lead	No tested (% change from previous year)
1996	4.0	5574
1997	3.2	4574 (-18%)
1998	3.0	3727 (-19%)
1999	2.6	3482 (-7%)
2000	2.0	6129 (+76%)
2001	2.2	8321 (+36%)



Lead and Cadmium Have Been Found in Children's Products

A 1998 Greenpeace Expose listed several children's toys that contain lead and cadmium in levels determined to be hazardous. Some examples from the list are:

- ♦ Barbie Backpacks
- ♦ Toteables Cosmetics Pouch
- ♦ Fun d Mentals Pencil Case
- ♦ Tweety Rainhat
- ♦ Costume jewelry

Some companies such as Mattel Inc., Rubbermaid and Nike Inc. are voluntarily phasing out the use of polyvinyl chloride (PVC) plastics and softeners. See also www.cpsc.gov/CPSC/PUBS/pbcdtoys.html

Important Phone Numbers

Lead Poisoning Prevention Program 800-886-7689

Mishelle Macias 303-692-2622

Melanie Mattson 303-692-2756

Patricia Ennis 303-692-2789

Eydie Bell 303-692-2755

Lead Certification and Training 303-692-3164

**Rocky Mountain Poison and Drug Center 303-739-1123
or 800-332-3073**

State Medicaid Program 303-866-5532 or 303-866-3861

HEPA vacuums available

The Lead Poisoning Prevention Program has HEPA vacuums, used to clean lead contaminated homes, available to local health departments and nursing services on a loan basis. Call 303-692-2789 for information.

Colorado Department of Public Health and Environment

4300 Cherry Creek Drive South

DCEED LP3A3

Denver CO 80246-1530

303-692-2700 or 800-886-7689

DCEED LP3 3642